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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/408,279      09/29/99      ROSATO

J      SCP-6620

IM52/0423

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EXAMINER

KORNAKOV, M

ART UNIT

PAPER NUMBER

1746

DATE MAILED:

04/23/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/408,279

Applicant(s)

ROSATO ET AL.

Examiner

Michael Kornakov

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claims 1-79 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12 and 44-73, drawn to a method for rinsing metallized semiconductor substrates, classified in class 134, subclass 30.
- II. Claims 13-43, drawn to a system (apparatus) for rinsing a metallized semiconductor substrates, classified in class 134, subclass 100.1.
- III. Claims 74-79, drawn to a method for rinsing non-metallized semiconductor substrates, classified in class 134, subclass 36.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions are not disclosed as capable of use together and they have different modes of operation and different functions. The invention of Group I discloses the treatment of metallized substrates and it requires application of certain compounds. Group III discloses the treatment of non-metallized substrates and requires application of certain compounds, which are different from compounds of Group I.

Inventions of Group I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can

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be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practice by hand and apparatus can be used to practice another process, for example etching.

Inventions of Group II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practice by hand and apparatus can be used to practice another process, for example etching.

3. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II and III, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. Claim 1 is generic to a plurality of disclosed patentably distinct species comprising organic carboxylic acids **or** organic nitrogen containing compounds **or** inorganic acids, other than nitric and carbonic acids **or** carbon monoxide **or** ozone.

Claim 2 is generic to a plurality of disclosed patentably distinct species

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comprising organic monocarboxylic acids or organic polycarboxylic acids and further comprising, as per claim 3, undecanedioic acid or dodecanedioic acid or sebacic acid or oxalic acid or citric acid or ascorbic acid or acetic acid.

Claim 7 is generic to a plurality of disclosed patentably distinct species, described in claim 8, comprising benzotriazole, benzimidazole, tolyltriazole or imidazole or tris(hydroxymethyl)aminomethane or ethanolamine carbonate.

Claims 13, 14, 44 and 45 are generic to a plurality of disclosed patentably distinct species, described in claims 16, 17, 46 and 47, comprising organic compounds or inorganic compounds other than nitric acid or mixtures of said organic and inorganic compounds or carbon monoxide or ozone.

Claim 13, 44 and 58 are generic to a plurality of disclosed patentably distinct species, described in claims 27, 57 and 59, comprising nitrogen-containing organic compound, in which the nitrogen is contained in a ring or tris(hydroxymethyl)aminomethane or ethanolamine carbonate.

Claim 28 is generic to a plurality of disclosed patentably distinct species, described in claim 29, comprising benzotriazole, benzimidazole, tolyltriazole or imidazole or tris(hydroxymethyl)aminomethane or ethanolamine carbonate.

Claim 45 is generic to a plurality of disclosed patentably distinct species, comprising organic compounds or inorganic compounds or carbon dioxide or carbon monoxide or ozone.

Claims 44 and 45 are generic to a plurality of disclosed patentably distinct species, described in claims 53 and 55, comprising undecanedioic acid **or** dodecanedioic acid **or** sebacic acid **or** acetic acid.

Claim 62 is generic to a plurality of disclosed patentably distinct species, described in claim 63, comprising nitric acid **or** phosphoric acid **or** sulfamic acid.

Claims 74 and 75 are generic to a plurality of disclosed patentably distinct species, comprising hydrofluoric acid **or** hydrochloric acid **or** nitrilotriacetic acid **or** EDTA **or** gettering agents **or** chelating agents **or** surfactants.

Claim 13 is generic to a plurality of disclosed patentably distinct species, described in claims 24, 30, 36 and 37, comprising metallized copper **or** aluminum/aluminum alloys.

Claim 14 is generic to a plurality of disclosed patentably distinct species, described in claims 21, 22, 26 and 34 comprising metallized copper **or** titanium nitride.

Claim 44 is generic to a plurality of disclosed patentably distinct species, described in claims 54, 60, 64, 66 and 67 comprising metallized copper **or** titanium nitride **or** aluminum/aluminum alloys.

Claim 45 is generic to a plurality of disclosed patentably distinct species, described in claims 51 and 52, comprising metallized copper **or** titanium nitride.

***Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.***

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

5. A telephone call was made to applicants' representative, Ms. K. Frost on April 17, 2001 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (703) 305-0400. The examiner can normally be reached on 9:00am - 5:30pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (703) 308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703)305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 2450.

Michael Kornakov  
Examiner  
Art Unit 1746

MK  
April 17, 2001

  
RANDY GULAKOWSKI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700